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Trends in Growth of Farmer Cooperatives, 1950-60

by Kelsey B. Gardner
and Anne L. Gessner

Farmer Cooperative Service
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FARMER COOPERATIVE SERVICE
U. S. DEPARTMENT OF AGRICULTURE
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Joseph G. Knapp, Administrator

The Farmer Cooperative Service conducts research studies and service activities of assistance to farmers in connection with cooperatives engaged in marketing farm products, purchasing farm supplies, and supplying business services. The work of the Service relates to problems of management, organization, policies, merchandising, product quality, costs, efficiency, financing, and membership.

The Service publishes the results of such studies, confers and advises with officials of farmer cooperatives; and works with educational agencies, cooperatives, and others in the dissemination of information relating to cooperative principles and practices.

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Highlights

Farmer Cooperative Service made this study to determine whether cooperatives are growing, standing still, or declining in their relative importance in agriculture and in the economy as a whole.

Since 1954, the values of cooperative marketings have increased at a faster rate than agricultural marketings of all farmers.

Since 1952, the values of farmers' acquisitions of supplies and equipment through cooperatives have also increased at faster rates than expenditures for supplies and equipment of all farmers.

Based on the 10-year average of net values (excluding intercooperative business) of products marketed cooperatively, the index of cooperative marketings rose rather steadily from 81.4 in 1950-51 to 119.4 in 1959-60. In the same period the index of cash receipts of all farmers, based on a 10-year average, increased in lesser degree from 92.2 to 107.2, with numerous deviations.

The index for net values of farm supplies and equipment obtained through cooperatives, based on a 10-year average, rose steadily from 81.1 in 1950-51 to 115.9 in 1959-60. In the same period the index of cash expenditures of all farmers increased, with numerous deviations and within a narrower range, from 101.3 in 1951 to the high point of 110.2 in 1959 and then declined to 106.6 in 1960.

The index of gross national product, based on a 10-year average, rose steadily, except for a very slight deviation in 1954, from 73.4 in 1950 to 124.6 in 1959.

A comparison of the annual indexes for net values of products marketed cooperatively, cash receipts from marketings of all farmers, and the gross national product shows this: Since 1954 the trend for indexes of cooperative marketings is located, with the slight exception in 1958-59, between the indexes of gross national product and of cash receipts of all farmers from their marketings. This is a reversal of the positions of the three series of indexes before 1954 and indicates a growth trend distinctly favorable to cooperative marketing in the agricultural sector of our economy.

A comparison of the annual indexes of supplies and equipment handled cooperatively, total cash expenditures of all farmers for supplies and equipment, and gross national product indicates this: Since 1955 the indexes of the net value of farm supplies and equipment handled by cooperatives have been located between the indexes for the gross national product and the indexes for cash expenditures of all farmers.

Evidence of the favorable growth trend for cooperative marketings of all commodities since 1954 is further strengthened by an analysis of the individual index trends for the 12 major commodity groups comprising cooperative marketings.

Nine of these 12 commodity groups showed improvement when their indexes of cooperative marketings were compared

with corresponding indexes of cash receipts of all farmers from marketings of similar commodities. These nine groups included: Cotton and products, dairy products, fruits and vegetables, grain (including soybeans), nuts, poultry products, rice, sugar products, and tobacco.

The three groups that showed little change were: Beans and peas (dry edible), livestock and livestock products, and wool and mohair.

Of the eight groups of farm supplies and equipment included in the analysis, cooperatives have made significant growth in six groups in recent years in relation to indexes of cash expenditures of all farmers for supplies and equipment. These six groups are: Building materials, containers, fertilizer, petroleum products, seed, and sprays and dusts. Feed and farm machinery and equipment did not show such a consistently favorable position in recent years.

Trends in Growth of Farmer Cooperatives, 1950-60

by Kelsey B. Gardner and Anne L. Gessner

Are farmer cooperatives growing, standing still, or declining in their position in agriculture and in the economy as a whole? Those interested in cooperatives are constantly seeking answers to these questions.

The purpose of this publication is to furnish information that we believe will be helpful. At the same time, an important objective is to set forth some of the problems confronting those who seek completely final and conclusive answers to these and related questions.

On the basis of our studies, it is possible to state at the outset that cooperative marketings since 1954 have increased at a faster rate than agricultural marketings of all farmers. Farmers' acquisitions of supplies and equipment through cooperatives since 1952 also have increased at faster rates than expenditures for supplies and equipment for all farmers.

Annual statistics of farmer marketing, purchasing, and related service cooperatives compiled and released by Farmer Cooperative Service have shown continuing increases in their dollar volumes of business since the depth of the depression in 1932-33. Valuable as these absolute figures are as indicators of growth, they do not reveal growth trends in relation to other parts of the agricultural economy or the economy as a whole.

It is the purpose of this publication to meet the interest evidenced through many requests for information on cooperative growth trends.

Measures of Growth Trends

Potential bases for developing comparisons of growth trends of farmer cooperatives with other trends are at least three in number.

The first meaningful possibility is a comparison of physical units of commodities handled by marketing cooperatives with totals of the same commodities or services for agriculture as a whole.

Comparisons based on physical units have much to recommend them. However,

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Note: Mr. Gardner was Director of the Management Services Division before his retirement, July 31, 1962. Miss Gessner is Chief, History and Statistics Branch, Management Services Division.

collection, analysis, and presentation of this information are costly and time-consuming processes. Only in limited instances are the necessary data presently available. Even if available, a difficult statistical problem is confronted in the selection of a common denominator for bringing these varying commodities together for the purpose of making overall comparisons.

Farmer Cooperative Service has a program underway for developing new statistical bases for measurement of cooperative growth based on quantitative data for individual services or functions performed; that is, crude oil refined, butter churned, and so on. These studies will use physical quantities insofar as is practical. Use of the service or function basis is essential to this measurement since cooperatives operating in the same field normally show variation in the number of services performed in connection with individual commodities as well as in the number and variety of commodities handled.[1]

A second possible method of comparison, which others have used, is the attempt to express dollar volumes of cooperative marketings and of farm supplies and services acquired through cooperatives as percentages of cash receipts of all farmers from marketings or their cash expenditures for supplies and equipment.

Farmer Cooperative Service has never considered this form of comparison as particularly meaningful. Variation in the number and importance of services performed by different cooperatives results in uncertainty as to the interpretation of comparisons. This difficulty is readily explainable. Farmers' cash receipts from marketings, for the most part, represent receipts at the farm gate. Dollar volumes of cooperative business represent essentially the value of farm products as they leave cooperative hands or the value of farm supplies as they are received by farmers from their cooperatives.

The Service considers these disparities between cooperative business figures and dollar figures for all farmers as important barriers to accurate comparison or determination of growth trends. For example, the percentage of dollar volume of grain handled by cooperatives in relation to cash receipts of all farmers from grain marketings does not reveal the variation in cooperatives' services brought about with the passage of time.

In other words, this type of comparison does not accurately reflect growth through added services performed cooperatively on the same volume of business. Changes in the extent of economic integration are not adequately revealed when it is used.

These considerations are particularly applicable to cooperative marketing in instances where added services increase the value of the products marketed at the cooperative level. The effects of economic integration in the case of farm supplies ordinarily will not be reflected in the cooperative business figures since this value for the most part is at a price-to-the-farmer level.

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[1]The following publications dealing with economic integration and based on the general procedures referred to have been released by Farmer Cooperative Service:

Gessner, Anne L. and Mather, J. Warren. Integrated Petroleum Operations Through Farmer Cooperatives, 1950 and 1957, General Report 58, 1959. 18 pp.

Gessner, Anne L. Integrated Dairy Operations Through Farmer Cooperatives, General Report 69, 1959. 39 pp.

Gessner, Anne L. Integrated Feed Operations Through Farmer Cooperatives, General Report 100, 1962. 56 pp.

Thus, it appears inaccurate to compare the marketing volume of farmer cooperatives with all cash receipts from farm marketings because the cooperative volume includes the value added by such services as processing and handling, whereas total cash receipts to farmers include only a very limited amount of value added by processing and handling. This is particularly important in such commodity groups as dairy, fruits and vegetables, and poultry. However, after proper adjustments are made for nonproduction uses of specific commodity groups, comparison of the net value of farm supplies and equipment handled by cooperatives with cash expenditures by all farmers for such supplies and equipment is valid.

Probably the best that can be said for this type of comparison is that a percentage developed by it represents the proportion of a commodity handled cooperatively through at least one stage of marketing or acquisition of farm supplies and services. To say, for example, "Twenty percent of a farm commodity is marketed cooperatively" ignores the fact that the cooperative may have performed only one or a few of the many functions in the marketing process.

A third basis of measurement of growth trends in cooperatives may be employed. This involves comparison of growth trends for cooperatives with trends of other series such as value of commodities marketed cooperatively with total cash receipts from similar marketings of all farmers. In this comparison, trends are computed for each of the series involved.

This type of comparison holds much promise despite such problems as those relating to price levels and variations between time periods for cooperative data and for other series. Since this type of comparison forms the basis for the indexes of cooperative growth presented in this report, a more detailed explanation of methods and limitations of the comparison is in order.

Indexes of Trends

The indexes of cooperative growth trends on which the presentations in this publication are based have been developed from dollar volumes of cooperative business. The basic data came from annual surveys of farmer cooperatives, prepared and published by Farmer Cooperative Service.

The concept underlying the indexes is relatively simple. As shown in table 1, 10-year averages of the annual net values of farm commodities marketed cooperatively were developed for each of the 12 principal commodity groups comprising Farmer Cooperative Service figures. Net-value rather than gross-value figures were used, since net values are exclusive of duplications arising from intercooperative business.

For example, the $455,400,000 figure for cotton and products shown in the column of table 1 headed "Net values of cooperative marketings" is the average of annual cooperative marketings of cotton and cotton products for the 10-year period 1950-51 through 1959-60. Ten-year averages for each of the remaining 11 commodity groups are shown. The average for all the 12 groups is $7,811,327,000. As indicated in footnote 5 of the table,

the latter figure contains a relatively small amount of miscellaneous products not included in the 12 commodity groups.

The second column of table 1 shows the 10-year averages of cash receipts by all farmers from their marketings of the 12 commodity groups. Basic data from which these averages were calculated came from statistics of the Department of Agriculture dealing with farmers' cash receipts from marketings of their products.

In a similar manner, table 2 reveals averages for eight major groups of farm supplies and equipment handled through farmer cooperatives. The second column consists of averages for annual cash expenditures by all farmers for the indicated groups of farm supplies and equipment.

With the exception of three groups -- building materials, containers, and sprays and dusts -- averages are based on 10 years' data. In the case of the three groups last named, cooperative data were not available for 1950-51, so 9-year averages are shown.

A question may arise at this point as to the relatively short period of 10 years which forms the basis of comparison. Reasons underlying selection of this period go back to important changes made by Farmer Cooperative Service in collecting and presenting its cooperative business volume figures beginning with the year 1950-51.

Table 1. - *Ten-year averages for net values of farm commodities marketed cooperatively and total cash receipts from marketings by all farmers, 1950-60*

Commodity items	Values of marketings[1]	
	Net values of cooperative marketings (annual averages, fiscal years 1950-51 through 1959-60)[2]	Cash receipts from marketings for all farmers (annual averages, calendar years 1950-59)[3]
	$1,000	
Beans and peas (dry edible)	29,824	137,024
Cotton and products	455,400	2,584,785
Dairy products	2,559,010	4,357,224
Fruits and vegetables	713,025	2,803,193
Grain[4]	1,633,653	4,925,052
Livestock and livestock products	1,373,137	9,672,885
Nuts	89,574	254,823
Poultry products	349,654	3,266,862
Wool and mohair	28,795	138,818
Rice	131,852	231,032
Sugar products	210,827	217,582
Tobacco	179,446	1,103,170
Total farm commodities[5]	7,811,327	31,204,000

[1]No adjustments made for changes in price levels.
[2]Net values exclude duplications arising from intercooperative transactions.
[3]Based on data from Economic Research Service, U. S. Dept. of Agr.
[4]Includes soybeans and soybean products.
[5]Includes miscellaneous farm products.

Table 2. - *Ten-year averages for net values of farm supplies and equipment obtained through cooperatives and total cash expenditures of all farmers for supplies and equipment, 1950-60*

Commodity items	Values of farm supplies and equipment[1]	
	Net values handled by cooperatives (annual averages, fiscal years 1950-51 through 1959-60)[2]	Cash expenditures by all farmers (annual averages calendar years 1951-60)[3]
	$1,000	
Building materials[4]	72,357	1,689,515
Containers[4]	24,749	133,510
Farm machinery and equipment	71,871	3,430,216
Feed	814,318	4,187,658
Fertilizer	250,689	1,284,449
Petroleum products	490,064	1,433,969
Seed	97,327	552,375
Sprays and dusts[4]	36,317	225,267
Total farm supplies and equipment	[5]2,077,631	[6]13,414,692

[1]No adjustments made for changes in price levels.
[2]Net values exclude duplications arising from intercooperative transactions.
[3]Based on data from Economic Research Service, U.S. Dept. of Agr.
[4]Nine year averages, 1951-52 through 1959-60.
[5]Includes limited amounts of meats and groceries and miscellaneous farm supplies.
[6]Includes miscellaneous farm supplies.

Beginning in 1950-51, dollar business figures have been collected from each cooperative on the basis of the individual commodity groups shown in tables 1 and 2. Thus, the annual total of cooperative marketings, for example, of poultry products, represents the total for all such products marketed by all farmer cooperatives on the lists of Farmer Cooperative Service.

This procedure represented a significant departure from methods followed in the years before 1950-51. For example, for this period dollar figures for cooperatives classified as predominantly dairy were grouped as business of dairy cooperatives. The identities and dollar totals of any minor commodities were included under the dairy heading and their significances were lost. In the 1950-51 changes in procedures, we corrected this situation by requesting each association to report on the major groups of farm products it marketed and farm supplies it handled.

This brief statement explains why this report is limited to the 10-year period beginning in 1950-51 for data on which cooperative indexes can be based for comparison with other significant series.

The next step involved the calculation of annual indexes of cooperative marketings and of cash receipts of all farmers from their marketings. In this procedure, each year's cooperative marketings were expressed as a percentage of the 10-year averages shown in table 1.

In table 3, for example, the annual indexes of cooperative marketings are percentages based on the 10-year average for total business of cooperatives, which

amounted to $7.8 billion (table 1). Similarly, the annual indexes of cash receipts of all farmers from marketings are expressed as percentages of the 10-year average cash receipts figure of $31.2 billion for all farmers (table 1).

The procedures thus outlined for developing annual indexes were followed for individual groups of commodities in both marketing and farm supply fields. Annual indexes for the gross national product (GNP), as shown in tables 5 and 6, were determined in similar manner.

Meaning and Limitations of Annual Indexes

Annual indexes for each of the series of data furnish reliable measurements of change. As the data for cooperatives are based on the operations of all farmer cooperatives handling specific farm commodities or supply items regardless of any other activities, the annual cooperative indexes represent the extent of cooperation in each specific field of activity.

No attempt has been made to adjust data in any of the series for changes in the price levels for commodities sold or farm supply items handled. Implicit in the analysis is the assumption that changes in price levels affect the series being compared in the same manner.

A difficult problem in developing indexes for the series of data included in this study is variation in the time periods covered. For example, cooperative business figures for the year 1950-51 include dollar business volume amounts for all cooperatives whose fiscal years ended between July 1, 1950, and June 30, 1951.

Cash receipts of all farmers from marketings are stated on a calendar year basis. To illustrate, in the case of marketings, comparison is made between the 1950-51 cooperative index and the 1950 index of cash receipts of all farmers. This basis is believed to reflect the closest approximation of comparable time periods permitted by available data. A similar procedure was followed in connection with indexes of the gross national product.

For farm supply items, however, comparison of the 1950-51 farm supply indexes is made with 1951 cash expenditures of all farmers for supplies and equipment. Tests of other procedures led to the conclusion that comparison in accord with the bases outlined furnishes the more reliable results.

It is important that differences between indexes in the several series be regarded as indicators of variations in trends rather than as absolute measures of the extent of the variations observed.

Tables beginning with table 3 include a column headed "Difference." A minus sign indicates that a specific cooperative index is less than the index in the other series with which it is being compared. The 1950-51 difference in table 3 of -10.8 between the index of 81.4 for cooperative marketings and the index of 92.2 for cash receipts of marketings of all farmers illustrates this point. A plus sign indicates the reverse situation. Trends in the cooperative position are thus readily identified by these differences between indexes.

Significant Trends

Table 3 presents a comparison of annual indexes for net values of products marketed cooperatively and indexes for cash receipts from marketings of all farmers for the 1950-60 period. The table clearly shows that the position of farmer cooperatives in marketing farm commodities has shown continuing improvement during all of the 10-year period with the minor exception in 1958-59. The slight exception in 1958-59 occurred when the difference between the index of cooperative marketings and the index of cash receipts from all marketings dropped slightly from +10.9 in 1957-58 to +9.4, then resumed the previous annual upward trend, reaching +12.2 in 1959-60.

During the most recent 5 years of the decade, the marketing volume of farmer cooperatives, when compared with the trend of cash receipts of all farmers from marketings, has shown a more significant rate of growth.

Table 4 reveals that farmer cooperatives handling supplies and equipment have also shown significant growth over the 10-year period in comparison with the trend for cash expenditures of all farmers for supplies and equipment. Again, farmer cooperatives show important improvement in their position in the supply and equipment field compared with the expenditures of all farmers.

Farmer cooperatives have thus demonstrated substantial growth in both marketing farm products and handling farm supplies over the period. This should

Table 3. - *Comparison of annual indexes for net values of products marketed cooperatively and for cash receipts from marketings of all farmers, based on 10-year averages, 1950-60*

Period	Annual indexes for farm products marketed		
	Index of cooperative marketings[1]	Index of cash receipts of all farmers[1]	Difference[2]
1950-51	81.4	92.2	-10.8
1951-52	94.4	105.1	-10.7
1952-53	94.3	103.7	-9.4
1953-54	94.0	100.7	-6.7
1954-55	95.1	96.8	-1.7
1955-56	96.0	93.8	+2.2
1956-57	102.4	97.9	+4.5
1957-58[3]	106.5	95.6	+10.9
1958-59[3]	116.5	107.1	+9.4
1959-60[3]	119.4	107.2	+12.2
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash receipts of all farmers from marketings for calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1950 index for all farmers. For example, 81.4, the cooperative index for 1950-51, and 92.2, the 1950 index for all farmers, are compared.
[2]Index of cooperative marketings less index of cash receipts of all farmers.
[3]Based on revised data for cooperatives.

Table 4. - *Comparison of annual indexes for net values of farm supplies and equipment obtained through cooperatives and for cash expenditures of all farmers for farm supplies and equipment, based on 10-year averages, 1950-60*

Period	Annual indexes for farm supplies and equipment		
	Index of cooperative supply value [1]	Index of cash expenditures of all farmers1	Difference [2]
1950-51	81.1	101.3	-20.2
1951-52	92.4	100.6	-8.2
1952-53	96.9	96.4	+0.5
1953-54	95.2	94.4	+0.8
1954-55	97.3	95.2	+2.1
1955-56	98.5	93.9	+4.6
1956-57	103.3	97.4	+5.9
1957-58	105.3	104.0	+1.3
1958-59	114.1	110.2	+3.9
1959-60	115.9	106.6	+9.3
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash expenditures of all farmers for farm supplies and equipment in calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1951 index for all farmers. For example, 81.1, the cooperative index for 1950-51, and 101.3, the 1951 index for all farmers, are compared.
[2]Index of cooperative supply volume less index of cash expenditures of all farmers for supplies and equipment.

serve to answer the question of where farmer cooperatives stand.

Another important comparison of the annual indexes of cooperative marketings may be made with indexes of the gross national product as measures of what the economy as a whole has done during the decade.

Table 5 presents comparisons of indexes of cooperative marketings and of cash receipts of marketings of all farmers with annual indexes for gross national product. The three series of indexes appear in figure 1.

This figure shows that since 1954 the trend of indexes of cooperative marketings is located, with the slight exception in 1958-59, between the indexes of gross national product and of cash receipts of all farmers from their marketings. This is substantially a reversal of the positions of the three series of indexes before 1954.

The conclusion is evident that since 1954 cooperative marketings have shown growth trends positioned between the agricultural marketings series and the indexes for gross national product. This reveals a situation distinctly favorable to cooperative marketing.

Table 6 is similar in form to table 5. It shows indexes, however, for farm supplies and equipment. The indexes shown in table 6 are plotted on figure 2. The growth trends revealed by the cooperative indexes show that cooperative handling of farm supplies and equipment has followed a rather similar course to that of cooperative marketings. The cooperative supply trend shows favorable positions for farmer cooperatives in the period since 1954.

Table 5. - *Comparison of annual indexes of net values of farm products marketed by farmer cooperatives, total cash receipts from marketings of all farmers, and gross national product (GNP), 1950-60*[1]

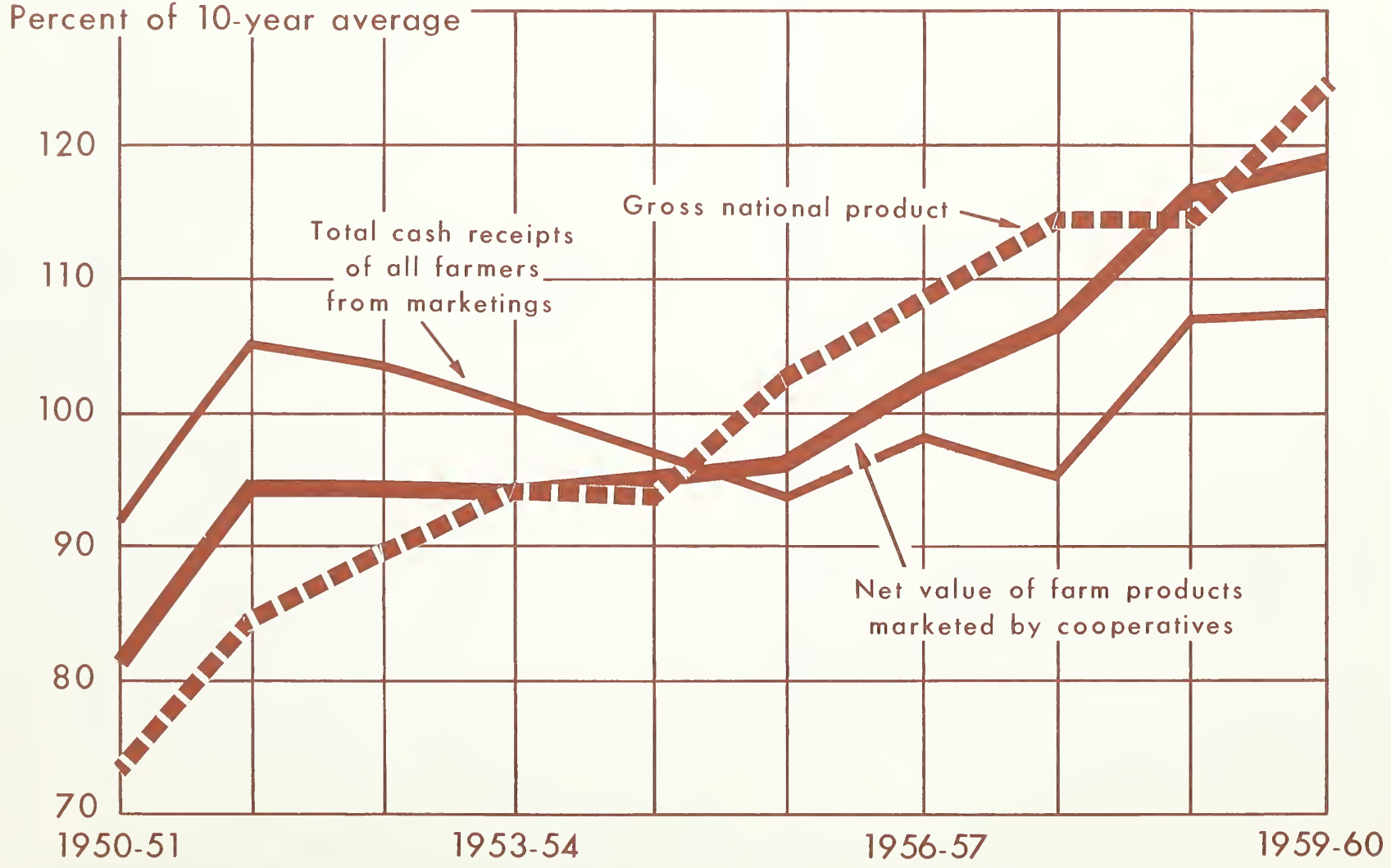
Net value of farm products marketed by cooperatives[2]			Total cash receipts of all farmers from marketings			Gross national product	
Fiscal year	Index based on percent of 10-year average	Difference between cooperative and GNP indexes	Calendar year	Index based on percent of 10-year average	Difference between all farmers' and GNP indexes	Calendar year	Index based on percent of 10-year average
1950-51	81.4	+8.0	1950	92.2	+18.8	1950	73.4
1951-52	94.4	+9.5	1951	105.1	+20.2	1951	84.9
1952-53	94.3	+4.8	1952	103.7	+14.2	1952	89.5
1953-54	94.0	-0.3	1953	100.7	+6.4	1953	94.3
1954-55	95.1	+1.4	1954	96.8	+3.1	1954	93.7
1955-56	96.0	-6.6	1955	93.8	-8.8	1955	102.6
1956-57	102.4	-5.8	1956	97.9	-10.3	1956	108.2
1957-58	106.5	-7.7	1957	95.6	-18.6	1957	114.2
1958-59	116.5	+1.8	1958	107.1	-7.6	1958	114.7
1959-60	119.4	-5.2	1959	107.2	-17.4	1959	124.6
10-year average	100.0	-	10-year average	100.0	-	10-year average	100.0

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers and for gross national product are based on calendar year data. Comparison of the 1950-51 index for cooperatives is made with the 1950 index for all farmers and for gross national product.

[2]Net value after adjustment for duplications arising from business between cooperatives.

Source: Cooperative data from Farmer Cooperative Service, U. S. Dept. of Agr. Cash receipts from marketings also from U. S. Dept of Agr. sources. Gross national product data from Economic Indicators, U. S. Council of Economic Advisors.

Fig. 1-Growth trends of cooperative marketings, cash receipts of all farmers from marketings, and gross national product, 1950-60 *



* COOPERATIVE DATA ARE FOR FISCAL YEARS. OTHER DATA ARE FOR CALENDAR YEARS.

Table 6. - *Comparison of annual indexes of net values of farm supplies and equipment obtained through cooperatives, total cash expenditures of all farmers for supplies and equipment, and gross national product (GNP)*[1]

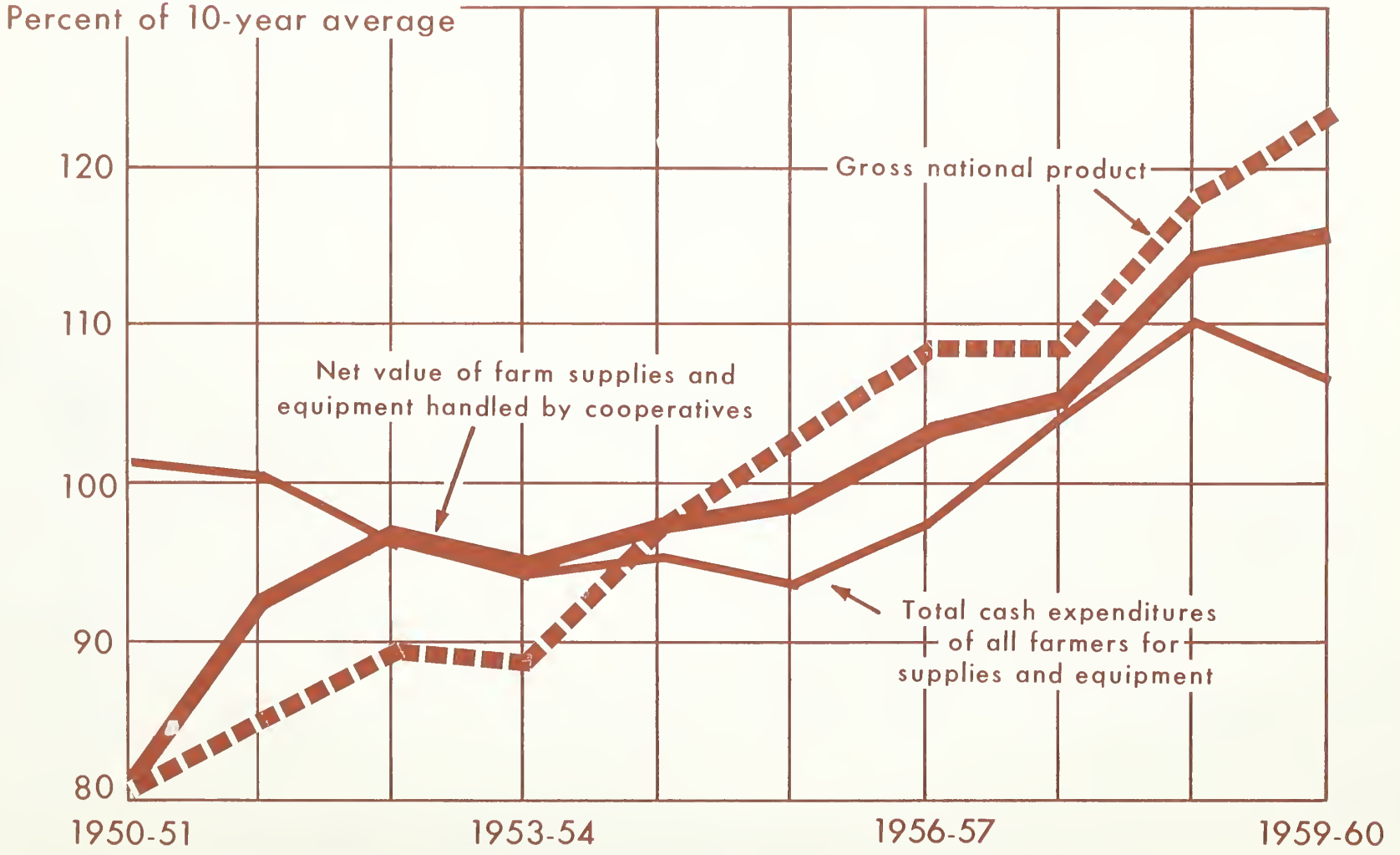
Net value of farm supplies and equipment handled by cooperatives[2]			Total cash expenditures of all farmers for supplies and equipment			Gross national product	
Fiscal year	Index based on percent of 10-year average	Difference between cooperative and GNP indexes	Calendar year	Index based on percent of 10-year average	Difference between all farmers' and GNP indexes	Calendar year	Index based on percent of 10-year average
1950-51	81.1	+0.8	1951	101.3	+21.0	1951	80.3
1951-52	92.4	+7.7	1952	100.6	+15.9	1952	84.7
1952-53	96.9	+7.7	1953	96.4	+7.2	1953	89.2
1953-54	95.2	+6.6	1954	94.4	+5.8	1954	88.6
1954-55	97.3	+0.3	1955	95.2	-1.8	1955	97.0
1955-56	98.5	-3.9	1956	93.9	-8.5	1956	102.4
1956-57	103.3	-4.8	1957	97.4	-10.7	1957	108.1
1957-58	105.3	-3.2	1958	104.0	-4.5	1958	108.5
1958-59	114.1	-3.8	1959	110.2	-7.7	1959	117.9
1959-60	115.9	-7.3	1960	106.6	-16.6	1960	123.2
10-year average	100.0	-	10-year average	100.0	-	10-year average	100.0

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers and for gross national product are based on calendar year data. Comparison of the 1950-51 index for cooperatives is made with the 1951 index for all farmers and gross national product.

[2]Net value after adjustment for duplications arising from business between cooperatives.

Source: Cooperative data from Farmer Cooperative Service, U. S. Dept. of Agr. Total cash expenditures of all farmers also from U. S. Dept. of Agr. sources. Gross national product data from Economic Indicators, U. S. Council of Economic Advisors.

Fig.2-Growth trends of supplies and equipment handled cooperatively, cash expenditures of all farmers for supplies and equipment, and gross national product, 1950-60*



*COOPERATIVE DATA ARE FOR FISCAL YEARS. OTHER DATA ARE FOR CALENDAR YEARS.

As previously pointed out, table 5 and figure 1 reveal a favorable growth trend for cooperative marketings of all commodities since 1954. This conclusion is strengthened by study of individual index trends for the 12 major commodity groups comprising cooperative marketings.

Examination of tables 7 to 18, and particularly the "Difference" columns, will reveal the position and trends of cooperative marketings as to cash receipts of all farmers from their marketing of various commodity groups.

Of the 12 commodity groups 9 show improvement when their indexes of cooperative marketings are compared with corresponding indexes of cash receipts of all farmers from marketings of similar commodities. The nine groups include:

Group	Table
Cotton and products	8
Dairy products	9
Fruits and vegetables	10
Grain (including soybeans)	11
Nuts	13
Poultry products	14
Rice	15
Sugar products	16
Tobacco	17

The three commodity groups whose positions show little change when compared with cash receipts of all farmers

Table 7. - *Comparison of annual indexes for net values of beans and peas (dry edible) marketed cooperatively and for cash receipts from marketings of all farmers for beans and peas (dry edible), based on 10-year averages, 1950-60*

Period	Annual indexes for beans and peas (dry edible)		
	Index of cooperative marketings[1]	Index of all farmers' marketings[1]	Difference[2]
1950-51	83.9	88.4	-4.5
1951-52	120.3	93.7	+26.6
1952-53	111.2	103.2	+8.0
1953-54	105.7	114.6	-8.9
1954-55	108.1	102.6	+5.5
1955-56	99.0	106.6	-7.6
1956-57	93.4	94.9	-1.5
1957-58	89.5	88.6	+0.9
1958-59	92.0	104.6	-12.6
1959-60	96.7	102.8	-6.1
10-year average	100.0	100.0	

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash receipts of all farmers from marketings of beans and peas (dry edible) for calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1950 index for all farmers. For example, 83.9, the cooperative index for 1950-51, and 88.4, the 1950 index for all farmers, are compared.
[2]Index of cooperative marketings less index of cash receipts of all farmers.

Table 8. - *Comparison of annual indexes for net values of cotton and cotton products marketed cooperatively and for cash receipts from marketings of all farmers for cotton and cotton products, based on 10-year averages, 1950-60*

Period	Annual indexes for cotton and cotton products		
	Index of cooperative marketings[1]	Index of all farmers' marketings[1]	Difference[2]
1950-51	70.3	95.7	-25.4
1951-52	83.5	110.7	-27.2
1952-53	82.4	116.0	-33.6
1953-54	114.8	123.3	-8.5
1954-55	86.7	104.7	-18.0
1955-56	105.2	99.1	+6.1
1956-57	107.0	97.3	+9.7
1957-58	90.6	68.5	+22.1
1958-59	126.1	82.9	+43.2
1959-60	133.4	101.8	+31.6
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash receipts of all farmers from marketings of cotton and cotton products for calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1950 index for all farmers. For example, 70.3, the cooperative index for 1950-51, and 95.7, the 1950 index for all farmers, are compared.
[2]Index of cooperative marketings less index of cash receipts of all farmers.

Table 9. - *Comparison of annual indexes for net values of dairy products marketed cooperatively and for cash receipts from marketings of all farmers for dairy products, based on 10-year averages, 1950-60*

Period	Annual indexes for dairy products		
	Index of cooperative marketings[1]	Index of all farmers' marketings[1]	Difference[2]
1950-51	75.6	86.4	-10.8
1951-52	84.6	97.5	-12.9
1952-53	93.6	104.5	-10.9
1953-54	94.2	100.3	-6.1
1954-55	95.0	94.8	+0.2
1955-56	99.4	96.7	+2.7
1956-57	108.0	103.0	+5.0
1957-58	114.0	106.6	+7.4
1958-59	116.2	104.6	+11.6
1959-60	119.4	105.7	+13.7
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash receipts of all farmers from marketings of dairy products for calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1950 index for all farmers. For example, 75.6, the cooperative index for 1950-51, and 86.4, the 1950 index for all farmers, are compared.
[2]Index of cooperative marketings less index of cash receipts of all farmers.

Table 10. - *Comparison of annual indexes for net values of fruits and vegetables marketed cooperatively and for cash receipts from all marketings of farmers for fruits and vegetables based on 10-year averages, 1950-60*

Period	Annual indexes for fruits and vegetables		
	Index of cooperative marketings[1]	Index of all farmers' marketings[1]	Difference[2]
1950-51	77.5	92.4	-14.9
1951-52	83.7	98.1	-14.4
1952-53	82.8	104.6	-21.8
1953-54	85.6	98.5	-12.9
1954-55	94.7	93.9	+0.8
1955-56	101.4	99.9	+1.5
1956-57	101.4	106.9	-5.5
1957-58[3]	115.6	98.0	+17.6
1958-59[3]	125.1	100.9	+24.2
1959-60[3]	132.1	106.9	+25.2
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash receipts of all farmers from marketings of fruits and vegetables for calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1950 index for all farmers. For example, 77.5, the cooperative index for 1950-51, and 92.4, the 1950 index for all farmers, are compared.
[2]Index of cooperative marketings less index of cash receipts of all farmers.
[3]Based on revised data for cooperatives.

Table 11. - *Comparison of annual indexes for net values of grain marketed cooperatively and for cash receipts from marketings of all farmers for grain, based on 10-year averages, 1950-60*[1]

Period	Annual indexes for grain		
	Index of cooperative marketings[2]	Index of all farmers' marketings[2]	Difference[3]
1950-51	83.3	90.9	-7.6
1951-52	98.9	86.4	+12.5
1952-53	97.0	95.9	+1.1
1953-54	91.3	100.0	-8.7
1954-55	94.5	100.5	-6.0
1955-56	96.2	94.4	+1.8
1956-57	101.8	105.8	-4.0
1957-58	102.7	94.5	+8.2
1958-59	116.0	119.0	-3.0
1959-60	118.1	112.5	+5.6
10-year average	100.0	100.0	-

[1]Grain includes soybeans and soybean products.
[2]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash receipts of all farmers from marketings of grain (including soybeans and soybean products) for calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1950 index for all farmers. For example, 83.3, the cooperative index for 1950-51, and 90.9, the 1950 index for all farmers, are compared.
[3]Index of cooperative marketings less index of cash receipts of all farmers.

Table 12. - *Comparison of annual indexes for net values of livestock and livestock products marketed cooperatively and for cash receipts from marketings of all farmers for livestock and livestock products, based on 10-year averages, 1950-60*

Period	Annual indexes for livestock and livestock products		
	Index of cooperative marketings[1]	Index of all farmers' marketings[1]	Difference[2]
1950-51	96.3	97.2	-0.9
1951-52	120.0	117.4	+2.6
1952-53	107.5	104.9	+2.6
1953-54	94.4	91.5	+2.9
1954-55	97.4	93.9	+3.5
1955-56	85.9	84.5	+1.4
1956-57	85.5	85.9	-0.4
1957-58	94.6	97.2	-2.6
1958-59	111.2	114.2	-3.0
1959-60	107.1	113.2	-6.1
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash receipts of all farmers from marketings of livestock and livestock products for calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1950 index for all farmers. For example, 96.3, the cooperative index for 1950-51, and 97.2, the 1950 index for all farmers, are compared.
[2]Index of cooperative marketings less index of cash receipts of all farmers.

Table 13. - *Comparison of annual indexes for net values of nuts marketed cooperatively and for cash receipts from marketings of all farmers for nuts, based on 10-year averages, 1950-60*

Period	Annual indexes for nuts		
	Index of cooperative marketings[1]	Index of all farmers' marketings[1]	Difference[2]
1950-51	126.7	109.4	+17.3
1951-52	103.1	98.0	+5.1
1952-53	61.6	89.6	-28.0
1953-54	93.6	96.4	-2.8
1954-55	51.7	74.9	-23.2
1955-56	101.9	111.9	-10.0
1956-57	107.4	108.3	-0.9
1957-58	103.9	88.4	+15.5
1958-59	122.2	117.5	+4.7
1959-60	127.9	105.6	+22.3
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash receipts of all farmers from marketings of nuts for calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1950 index for all farmers. For example, 126.7, the cooperative index for 1950-51, and 109.4, the 1950 index for all farmers, are compared.
[2]Index of cooperative marketings less index of cash receipts of all farmers.

Table 14. - *Comparison of annual indexes for net values of poultry products marketed cooperatively and for cash receipts from marketings of all farmers for poultry products, based on 10-year averages, 1950-60*

Period	Annual indexes for poultry products		
	Index of cooperative marketings[1]	Index of all farmers' marketings[1]	Difference[2]
1950-51	75.4	87.0	-11.6
1951-52	91.8	112.3	-20.5
1952-53	96.3	105.4	-9.1
1953-54	104.0	115.1	-11.1
1954-55	100.2	97.8	+2.4
1955-56	102.4	97.5	+4.9
1956-57	104.1	98.2	+5.9
1957-58	102.1	92.7	+9.4
1958-59	112.0	102.6	+9.4
1959-60	111.7	91.4	+20.3
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash receipts of all farmers from marketings of poultry products for calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1950 index for all farmers. For example, 75.4, the cooperative index for 1950-51, and 87.0, the 1950 index for all farmers, are compared.
[2]Index of cooperative marketings less index of cash receipts of all farmers.

Table 15. - *Comparison of annual indexes for net values of rice marketed cooperatively and for cash receipts from marketings of all farmers for rice, based on 10-year averages, 1950-60*

Period	Annual indexes for rice		
	Index of cooperative marketings[1]	Index of all farmers' marketings[1]	Difference[2]
1950-51	68.8	78.5	-9.7
1951-52	84.6	80.4	+4.2
1952-53	102.9	130.4	-27.5
1953-54	107.6	111.2	-3.6
1954-55	106.3	100.5	+5.8
1955-56	100.8	106.6	-5.8
1956-57	106.5	103.2	+3.3
1957-58	110.0	92.7	+17.3
1958-59	102.5	97.1	+5.4
1959-60	110.0	99.4	+10.6
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash receipts of all farmers from marketings of rice for calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1950 index for all farmers. For example, 68.8, the cooperative index for 1950-51, and 78.5, the 1950 index for all farmers, are compared.
[2]Index of cooperative marketings less index of cash receipts of all farmers.

Table 16. - *Comparison of annual indexes for net values of sugar products marketed cooperatively and for cash receipts from marketings of all farmers for sugar products, based on 10-year averages, 1950-60*

Period	Annual indexes for sugar products		
	Index of cooperative marketings[1]	Index of all farmers' marketings[1]	Difference[2]
1950-51	71.0	95.5	-24.5
1951-52	69.9	83.9	-14.0
1952-53	56.9	84.2	-27.3
1953-54	61.4	103.2	-41.8
1954-55	62.7	97.2	-34.5
1955-56	59.3	92.3	-33.0
1956-57	135.8	98.4	+37.4
1957-58	165.9	106.4	+59.5
1958-59	157.3	123.7	+33.6
1959-60	159.8	115.2	+44.6
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash receipts of all farmers from marketings of sugar products for calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1950 index for all farmers. For example, 71.0, the cooperative index for 1950-51, and 95.5, the 1950 index for all farmers, are compared.
[2]Index of cooperative marketings less index of cash receipts of all farmers.

Table 17. - *Comparison of annual indexes for net values of tobacco marketed cooperatively and for cash receipts from marketings of all farmers for tobacco, based on 10-year averages, 1950-60*

Period	Annual indexes for tobacco		
	Index of cooperative marketings[1]	Index of all farmers' marketings[1]	Difference[2]
1950-51	70.1	96.5	-26.4
1951-52	96.6	108.0	-11.4
1952-53	93.8	98.5	-4.7
1953-54	88.5	99.0	-10.5
1954-55	120.9	105.1	+15.8
1955-56	105.9	111.1	-5.2
1956-57	111.2	105.3	+5.9
1957-58	80.9	88.0	-7.1
1958-59	97.6	92.5	+5.1
1959-60	134.5	96.1	+38.4
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash receipts of all farmers from marketings of tobacco for calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1950 index for all farmers. For example, 70.1, the cooperative index for 1950-51, and 96.5, the 1950 index for all farmers, are compared.
[2]Index of cooperative marketings less index of cash receipts of all farmers.

Table 18. - *Comparison of annual indexes for net values of wool and mohair marketed cooperatively and for cash receipts from marketings of all farmers for wool and mohair, based on 10-year averages, 1950-60*

Period	Annual indexes for wool and mohair		
	Index of cooperative marketings[1]	Index of all farmers' marketings[1]	Difference[2]
1950-51	101.6	98.8	+2.8
1951-52	146.0	173.4	-27.4
1952-53	123.2	93.8	+29.4
1953-54	112.0	98.5	+13.5
1954-55	100.8	98.8	+2.0
1955-56	88.3	83.0	+5.3
1956-57	84.7	84.6	+0.1
1957-58	68.5	88.7	-20.2
1958-59	96.6	71.7	+24.9
1959-60	78.2	108.6	-30.4
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash receipts of all farmers from marketings of wool and mohair for calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1950 index for all farmers. For example, 101.6, the cooperative index for 1950-51, and 98.8, the 1950 index for all farmers, are compared.
[2]Index of cooperative marketings less index of cash receipts of all farmers.

from marketings of similar groups of commodities include:

Group	Table
Beans and peas (dry edible)	7
Livestock and livestock products	12
Wool and mohair	18

It is pertinent to point out again that the cooperative indexes do not consistently reveal the effects of increased economic integration through additional services. In some instances, where increased processing is performed, dollar business figures for later years will reflect increases in value added by processing. Examples include the following: Processing of cotton oil, manufacture of products from surplus fluid milk, fruits and vegetables, soybeans, and poultry.

Trends in Farm Supplies and Equipment

Indexes for six of the eight groups of farm supplies and equipment show that cooperatives have made significant growths in recent years in relation to indexes of cash expenditures of all farmers for supplies and equipment.

The six groups and the number of recent years for which cooperative indexes

have exceeded indexes of cash expenditures for all farmers for supplies and equipment in the group are as follows:

Group	Number of years	Table
Building materials	6	19
Containers	5	20
Fertilizer	6	23
Petroleum products	4	24
Seed	5	25
Sprays and dusts	4	26

The two remaining supply and equipment groups are farm machinery and equipment (table 21) and feed (table 22).

Cooperative indexes for farm machinery and equipment in relation to indexes of cash expenditures of all farmers for these items show variation, but the total effect is one of little change over the 10-year period.

In the case of feed, however, the relatively favorable position of cooperatives in the period 1952-53 through 1956-57 has given way to a somewhat less favorable one during the 3 years 1957-58 through 1959-60. This is indicated in the column of "Difference" in table 22.

Table 19. - *Comparison of annual indexes for net values of building materials obtained through cooperatives and for cash expenditures of all farmers for building materials, based on 9-year averages, 1951-60*

Period	Annual indexes for building materials		
	Index of cooperative supply volume[1]	Index of cash expenditures of all farmers[1]	Difference[2]
1950-51[3]	-	-	-
1951-52	55.6	108.6	-53.0
1952-53	76.9	103.2	-26.3
1953-54	85.7	94.5	-8.8
1954-55	106.8	100.9	+5.9
1955-56	109.3	97.6	+11.7
1956-57	113.6	97.6	+16.0
1957-58	105.5	90.8	+14.7
1958-59	120.8	107.7	+13.1
1959-60	125.9	99.0	+26.9
9-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash expenditures of all farmers for building materials in calendar years. Comparison of the 1951-52 index for cooperatives is made with the 1952 index for all farmers. For example, 55.6, the cooperative index for 1951-52, and 108.6, the 1952 index for all farmers, are compared.
[2]Index of cooperative supply volume less index of cash expenditures by all farmers.
[3]Data for cooperatives are not available for building materials in 1950-51. They are included, however, in miscellaneous supplies for that year.

Table 20. - *Comparison of annual indexes for net values of containers obtained through cooperatives and for cash expenditures of all farmers for containers, based on 9-year averages, 1951-60*

Period	Annual indexes for containers		
	Index of cooperative supply volume[1]	Index of cash expenditures of all farmers[1]	Difference[2]
1950-51[3]	-	-	-
1951-52	71.9	102.3	-30.4
1952-53	86.4	96.9	-10.5
1953-54	103.1	97.7	+5.4
1954-55	91.6	94.7	-3.1
1955-56	102.2	101.6	+0.6
1956-57	108.2	101.4	+6.8
1957-58	108.7	105.9	+2.8
1958-59	115.9	104.1	+11.8
1959-60	112.0	95.3	+16.7
9-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash expenditures of all farmers for containers in calendar years. Comparison of the 1951-52 index for cooperatives is made with the 1952 index for all farmers. For example, 71.9, the cooperative index for 1951-52, and 102.3, the 1952 index for all farmers, are compared.
[2]Index of cooperative supply volume less index of cash expenditures by all farmers.
[3]Data for cooperatives are not available for containers in 1950-51. They are included, however, in miscellaneous supplies for that year.

Table 21. - *Comparison of annual indexes for net values of farm machinery and equipment obtained through cooperatives and for cash expenditures of all farmers for farm machinery and equipment, based on 10-year averages, 1950-60*

Period	Annual indexes for farm machinery and equipment		
	Index of cooperative supply volume[1]	Index of cash expenditures of all farmers[1]	Difference[2]
1950-51	94.8	111.3	-16.5
1951-52	106.4	99.9	+6.5
1952-53	103.4	102.0	+1.4
1953-54	97.1	94.3	+2.8
1954-55	90.4	93.6	-3.2
1955-56	95.6	86.3	+9.3
1956-57	99.3	92.9	+6.4
1957-58	100.5	108.1	-7.6
1958-59	106.1	115.0	-8.9
1959-60	106.4	96.5	+9.9
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash expenditures of all farmers for farm machinery and equipment in calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1951 index for all farmers. For example, 94.8, the cooperative index for 1950-51, and 111.3, the 1951 index for all farmers, are compared.
[2]Index of cooperative supply volume less index of cash expenditures by all farmers.

Table 22. - *Comparison of annual indexes for net values of feed obtained through cooperatives and for cash expenditures of all farmers for feed, based on 10-year averages, 1950-60*

Period	Annual indexes for feed		
	Index of cooperative supply volume[1]	Index of cash expenditures of all farmers[1]	Difference[2]
1950-51	85.3	99.5	-14.2
1951-52	99.6	102.7	-3.1
1952-53	104.2	89.7	+14.5
1953-54	99.5	92.5	+7.0
1954-55	99.2	91.7	+7.5
1955-56	95.1	92.5	+2.6
1956-57	98.8	97.5	+1.3
1957-58	99.4	107.7	-8.3
1958-59	110.0	110.4	-0.4
1959-60	108.8	115.8	-7.0
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash expenditures of all farmers for feed in calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1951 index for all farmers. For example, 85.3, the cooperative index for 1950-51, and 99.5, the 1951 index for all farmers, are compared.
[2]Index of cooperative supply volume less index of cash expenditures by all farmers.

Table 23. - *Comparison of annual indexes for net values of fertilizer obtained through cooperatives and for cash expenditures of all farmers for fertilizer, based on 10-year averages, 1950-60*

Period	Annual indexes for fertilizer		
	Index of cooperative supply volume[1]	Index of cash expenditures of all farmers[1]	Difference[2]
1950-51	62.3	84.5	-22.2
1951-52	73.3	95.7	-22.4
1952-53	86.3	97.0	-10.7
1953-54	92.6	99.2	-6.6
1954-55	99.7	97.8	+1.9
1955-56	104.3	98.4	+5.9
1956-57	109.6	99.4	+10.2
1957-58	113.1	101.6	+11.5
1958-59	125.4	112.4	+13.0
1959-60	133.4	113.9	+19.5
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash expenditures of all farmers for fertilizer in calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1951 index for all farmers. For example, 62.3, the cooperative index for 1950-51, and 84.5, the 1951 index for all farmers, are compared.
[2]Index of cooperative supply volume less index of cash expenditures by all farmers.

Table 24. - *Comparison of annual indexes for net values of petroleum products obtained through cooperatives and for cash expenditures of all farmers for petroleum products, based on 10-year averages, 1950-60*

Period	Annual indexes for petroleum products		
	Index of cooperative supply volume[1]	Index of cash expenditures of all farmers[1]	Difference[2]
1950-51	76.9	91.2	-14.3
1951-52	86.0	91.1	-5.1
1952-53	89.0	94.8	-5.8
1953-54	91.4	95.1	-3.7
1954-55	95.0	98.6	-3.6
1955-56	100.7	101.6	-0.9
1956-57	108.1	105.1	+3.0
1957-58	112.7	105.1	+7.6
1958-59	118.4	107.7	+10.7
1959-60	121.7	109.7	+12.0
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash expenditures of all farmers for petroleum products in calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1951 index for all farmers. For example, 76.9, the cooperative index for 1950-51, and 91.2, the 1951 index for all farmers, are compared.
[2]Index of cooperative supply volume less index of cash expenditures by all farmers.

Table 25. - *Comparison of annual indexes for net values of seed obtained through cooperatives and for cash expenditures of all farmers for seed, based on 10-year averages, 1950-60*

Period	Annual indexes for seed		
	Index of cooperative supply volume[1]	Index of cash expenditures of all farmers[1]	Difference[2]
1950-51	93.0	101.7	-8.7
1951-52	97.6	107.5	-9.9
1952-53	104.1	101.4	+2.7
1953-54	97.1	100.8	-3.7
1954-55	102.5	104.4	-1.9
1955-56	100.0	96.6	+3.4
1956-57	102.8	96.7	+6.1
1957-58	98.5	96.7	+1.8
1958-59	100.0	96.7	+3.3
1959-60	104.4	97.4	+7.0
10-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash expenditures of all farmers for seed in calendar years. Comparison of the 1950-51 index for cooperatives is made with the 1951 index for all farmers. For example, 93.0, the cooperative index for 1950-51, and 101.7, the 1951 index for all farmers, are compared.
[2]Index of cooperative supply volume less index of cash expenditures by all farmers.

Table 26. - *Comparison of annual indexes for net values of sprays and dusts obtained through cooperatives and for cash expenditures of all farmers for sprays and dusts, based on 9-year averages, 1951-60*

Period	Annual indexes for sprays and dusts		
	Index of cooperative supply volume[1]	Index of cash expenditures of all farmers[1]	Difference[2]
1950-51[3]	-	-	-
1951-52	67.9	84.3	-16.4
1952-53	66.1	81.1	-15.0
1953-54	73.3	79.7	-6.4
1954-55	87.8	90.9	-3.1
1955-56	98.0	122.6	-24.6
1956-57	112.2	102.6	+9.6
1957-58	118.6	105.5	+13.1
1958-59	129.6	111.0	+18.6
1959-60	146.5	122.4	+24.1
9-year average	100.0	100.0	-

[1]Cooperative indexes are based on net business volumes for associations with fiscal years ending between July 1 and June 30. Net volume figures are adjusted for duplications arising from intercooperative business. Indexes for all farmers are based on cash expenditures of all farmers for sprays and dusts in calendar years. Comparison of the 1951-52 index for cooperatives is made with the 1952 index for all farmers. For example, 67.9, the cooperative index for 1951-52, and 84.3, the 1952 index for all farmers, are compared.
[2]Index of cooperative supply volume less index of cash expenditures by all farmers.
[3]Data for cooperatives are not available for sprays and dusts in 1950-51. They are included, however, in miscellaneous supplies for that year.

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Other Publications Available

Farmer Cooperatives in the United States, FCS Bulletin 1.

The Story of Farmers' Cooperatives, Educational Circular 1.

Organizing a Farmer Cooperative, FCS Circular 18.

Sizing Up Your Cooperative, Educational Circular 11.

Statistics of Farmer Cooperatives, General Report 103. Anne L. Gessner.

Integrated Petroleum Operations Through Farmer Cooperatives, 1950 and 1957, General Report 58. Anne L. Gessner and J. Warren Mather.

Integrated Dairy Operations Through Farmer Cooperatives, General Report 69. Anne L. Gessner.

Integrated Feed Operations Through Farmer Cooperatives, 1959, General Report 100. Anne L. Gessner.

Methods of Financing Farmer Cooperatives, General Report 32. Helim H. Hulbert, Nelda Griffin, and Kelsey B. Gardner.

Management Training Among Farmer Cooperatives, General Report 65. David Volkin and Nelda Griffin.

Mergers for Stronger Cooperatives, Reprint 208.

What Are Patronage Refunds? Information 34. Kelsey B. Gardner.

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